

## **REQUEST FOR INFORMATION (RFI) FOR 19-INCH AND 24-INCH ELECTRICAL ENCLOSURES**

### **INTRODUCTION**

National Aeronautics and Space Administration (NASA) invites potential offerors to submit a response to this RFI to find interested and qualified sources and planning information for commercial off-the-shelf (COTS) or modified COTS electrical enclosures. These enclosures will be part of the electrical Ground Support Equipment (GSE) for the Constellation Program.

It is envisioned that this potential acquisition may ultimately result in the award of a competitively awarded best value contract. The Government will provide in its Request for Proposal a technical performance specification. The intent of this Request for Information (RFI) is to obtain information from industry to assist Kennedy Space Center (KSC) in its acquisition development. NASA is soliciting initial intent of interest from all companies with past experience and qualifications directly related to this type of product. NASA reserves the right to share all information received in response to this RFI throughout NASA and to use all information submitted in response to this RFI in NASA's formulation of a solicitation seeking competitive proposals. However, any submitted competition sensitive data should be clearly marked and will not be shared outside of NASA electrical enclosure development team members. Although information contained herein represents current program content and acquisition planning, it is subject to change. Response to this RFI is requested within the context of the general approach described in the following paragraphs.

### **19-INCH AND 24-INCH ELECTRICAL ENCLOSURES DESCRIPTION**

#### **SCOPE:**

1. This is a request for information from vendors concerning industrial/commercial electrical enclosures with the physical properties as listed below. Electrical Enclosures defined as: Floor mount, modular enclosures ( racks and cabinets ), designed to protect electrical and electronic control equipment in launch environments where heavy-duty or severe service-rated enclosures are required.
2. Vendors should submit articles for consideration that most closely match the criteria listed below.

#### **REQUIREMENTS:**

1. Enclosure dimensions (19" and 24" panel mount systems):
  - a) Width (19" Rack) = 28" (24" Rack) = 33"
  - b) Depth = 41"
  - c) Height = 75"

2. A minimum of 36 inches will be provided between mounting rack angles.
3. A minimum interior height of 38RU (rack units) provided.
4. Frame and Panel Construction:
  - a) Fabricated from 12 gauge steel with 10 gauge steel around perimeter of the base.
  - b) Seams continuously welded and ground smooth.
  - c) Welding shall be performed per AWS-D1.1 and D1.3 and performed by certified welders.
  - d) Solid base.
  - e) Removable top panel option for cable entry provisions.
  - f) Limited cutouts for cable entry and venting.
  - g) Stiffeners constructed of 12 gauge steel.
  - h) Frame consisting of a minimum of four sets of front to back grid straps welded in and uniformly spaced from top to bottom.
  - i) Adjustable rack angles constructed of 10 gauge steel with 10-32 tapped mounting holes.
  - j) Removable side panels should be provided with tamper resistant internal brackets.
5. Doors and Side Panel Construction:
  - a) Solid front and rear doors.
  - b) Doors configured with at least a three point latching system which includes a slide detent/pivoting mechanism integrated with the door handle.
  - c) Handle accommodating a removable key lock option. Optional pad lock type handle.
  - d) Rear door accommodating a redundant EMI 10" fan and exhaust for rack ventilation.
  - e) Door material and stiffeners constructed of 12 gauge steel.
  - f) Door and side panels containing one vertical hat stiffener.
6. Door Hinges:
  - a) Door hinge configuration allowing for multiple-bay or side-by-side arrangements such that cabinet doors can swing a minimum of 135 degrees from the closed position to the full opened position, while adjacent cabinet doors are closed.
  - b) Door hinges of the lift-off pin type, permitting the door to be lifted up and off without removal of pins or other attaching hardware.

7. Lifting Eyes:
  - a) Provisions made for the installation of removable lifting eyes at all four corners of top frame.
8. Electromagnetic Interference (EMI) Shielding:
  - a) Close tolerances at access openings for proper EMI gasket sealing.
  - b) The frame, along with all optional bolt-on components, plated per specification ASTM-B633, which calls for electrodeposited zinc plating with clear chromate conversion coating.
  - c) EMI enclosure shielding and gasket material, providing attenuation of 26dB throughout the frequency range from 14 kHz to 18GHz.
9. Acoustic Properties:
  - a) Enclosures constructed to attenuate an Overall Sound Pressure Level (OASPL) of 160dB approximately 15dB across a frequency spectrum from 2Hz-8 KHz.
10. Coating:
  - a) Enclosure finished coated with textured polyester powder paint coating per RAL 7035.
11. Bonding and Grounding:
  - a) Electrical bonding provided where access doors, panels, plates, or other separable joints form a part of shielding.
  - b) Maximum resistance across bonded surface less than 5 milliohms. (Hinges are not a satisfactory conductive path.)
  - c) Grounding studs located at the top and bottom inside rear of cabinet. The grounding stud size and threads are 0.25 inch in diameter by 1 inch in length and 20 threads per inch.

#### SPECIFIC INFORMATION SOLICITED

Responders to this RFI are encouraged to comment on any of the foregoing and to express their interest in this proposed acquisition by submitting the following information:

1. Organization name, address.
  - a) Describe principal activity, primary point-of-contact, and business size.
2. Technical drawings, specifications, and test data to corroborate any statements of compliance to the "Requirements" above.
3. Cost – Rough Order of Magnitude (ROM) for each article or production unit.
4. Experience – Please state "past performance" and verifiable references to past projects

## RESPONSE INSTRUCTIONS

The requested responses are for information and planning purposes only. NASA does not intend to post information or questions received to any website or public access location. NASA does not plan to respond to the individual responses. Feedback to this RFI may be utilized in formulating the Government's acquisition strategy and documents.

All responses should be provided in MS Word document format, both hard and electronic media. Font should be Times New Roman, size 12. Responses should not exceed 15 pages and should reference "TBD." Please submit responses no later than TBD, to NASA/KSC Procurement Office, ATTN: Linda Rafford / OP-ES, Contracting Officer, Kennedy Space Center, FL 32899.

This preliminary information is being made available for planning purposes only, subject to FAR Clause 52.215-3, entitled "Solicitation for Information and Planning Purposes." It does not constitute a Request for Proposal, Invitation for Bid, or Request for Quotation, and it is not to be construed as a commitment by the Government to enter into a contract. Moreover, the Government will not pay for the information submitted in response to this RFI, nor will the Government reimburse an Offeror for costs incurred to prepare responses to this RFI.

No solicitation exists at this time; therefore, do not request a copy of the solicitation. If a solicitation is released it will be synopsized in the FedBizOpps and on the NASA Acquisition Internet Services (NAIS). It is the potential offeror's responsibility to monitor these sites for the release of any solicitation or synopsis.